**Paper Rocket Data Sheet**

**MaThink 2017**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test Flight** | | | |
| **Flight**  **Number** | **Flight Distance &**  **Units \_\_\_\_\_\_\_** | **Flight**  **Launch**  **Angle** | **Notes:** |
| Flight #1 |  |  |  |
| Flight #2 |  |  |  |
| Flight #3 |  |  |  |
|  | Average Flight Distance: | Flight Range: |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **First Iteration Flight** | | | |
| **Flight**  **Number** | **Flight Distance &**  **Units \_\_\_\_\_\_\_** | **Flight**  **Launch**  **Angle** | **Notes:** |
| Flight #1 |  |  |  |
| Flight #2 |  |  |  |
| Flight #3 |  |  |  |
|  | Average Flight Distance: | Flight Range: |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **2nd Iteration Flight** | | | |
| **Flight**  **Number** | **Flight Distance &**  **Units \_\_\_\_\_\_\_** | **Flight**  **Launch**  **Angle** | **Notes:** |
| Flight #1 |  |  |  |
| Flight #2 |  |  |  |
| Flight #3 |  |  |  |
|  | Average Flight Distance: | Flight Range: |  |

**Make a Model**

Using the data above…make a model.

* Use an appropriate graph to chart all of the above data on a single graph
  + Make sure to:
    - Use graph paper
    - have an appropriately descriptive title
    - Label the axis
* Make a claim, and reason via the evidence, that the changes you made to your design helped the rocket fly farther.
  + Describe in detail what changes you made and point at the evidence as to how you know the rocket travelled further

Claim, Evidence, Reasoning:

**A case for the Mathematica Practices**

By yourself….think about which practices were used and/or applicable in this activity. Share with your table group.

**The eight Standards for Mathematical Practice are:**

1. Make sense of problems and persevere in solving them
2. Reason abstractly and quantitatively
3. Construct viable arguments and critique the reasoning of others
4. Model with mathematics
5. Use appropriate tools strategically
6. Attend to precision
7. Look for and make use of structure
8. Look for and express regularity in repeated reasoning

Math Practices used: